REMARKS

The Office Action dated November 15, 2006, has been received and carefully noted. The above amendments to the claims, and the following remarks, are submitted as a full and complete response thereto.

Claims 1-27 are pending, of which claims 1, 5, 11, 14, and 21 are independent. Claims 1-27 are respectfully submitted for consideration.

Claims 1, 3-11, 13-19, and 21-26 stand rejected under 35 U.S.C. §103(a), as being unpatentable over Basso et al. (U.S. Patent Application Publication No. 2003/0231640 – hereinafter Basso) in view of Edmondson (U.S. Patent Application Publication No. 2004/0117613 – hereinafter Edmondson). Applicants respectfully traverse the rejection at least for the reasons provided below.

In the obviousness rejection over Basso and Edmondson, the Office Action contended that Basso fails to explicitly teach defining a customer policy and device-specific commands, wherein each policy target comprises a network device that includes an interface assigned a role name associated with the customer policy. The Office Action applied Edmondson as teaching assigning role name to router interface associated with specific customer policies, wherein the customer policies are translated in QoS command-line interface commands acceptable by the routers. However, Applicants respectfully assert that, as will be discussed below, each of the presently pending claims recite subject matter which is neither disclosed nor suggested in the cited prior art.

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Independent claim 1, upon which claim 2-4 are dependent, is directed to a system for configuring differentiated services (Diffserv) over multi-protocol label switching (MPLS) in a network that includes MPLS tunnels. The system includes a policy server that is arranged to configure a customer policy and a mapping policy that maps between an experimental (EXP) field and a unique per-hop-behavior (PHB), and to deploy the mapping policy and the customer policy to interfaces of devices of the network that correspond to the tunnels, wherein the interfaces and the customer policy are associated with a same role name.

Independent claim 5, upon which claims 6-10 are dependent, is directed to an apparatus for configuring Diffserv over MPLS in a network. The apparatus includes a memory; a service application residing on the memory, wherein the service application is arranged to configure a customer policy that comprises a tunnel group and tunneling mode, the customer policy being arranged to have customer traffic mapped into MPLS tunnels, and wherein the service application is arranged to configure an EXP-to-PHB mapping policy that is arranged to map EXP fields to PHB; a central processing facility that is arranged to translate the customer policy and mapping policy into device-neutral policy parameters; and a policy consumer that is arranged to translate the device-neutral policy parameters into device-specific commands, and that is further arranged to deploy the device-specific commands to policy targets, such that the customer policy and mapping policy are implemented across at least a portion of the network, and wherein the

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policy targets comprise network devices that each include an interface associated with a role name that is also associated with the customer policy.

Independent claim 11, upon which claims 12 and 13 are dependent, is directed to an apparatus for configuring Diffserv over MPLS in a network. The apparatus includes a means for defining a mapping policy that maps between an EXP field and a unique PHB; a means for maintaining a customer policy; a means for translating the mapping policy and customer policy into device-specific commands; and a means for deploying the device-specific commands to policy targets, wherein each policy target comprises a network device that includes an interface that is associated with a role name that is also associated with the customer policy.

Independent claim 14, upon which claims 15 and 20 are dependent, is directed to an article comprising: a storage medium, the storage medium having instructions stored thereon. The instructions result in defining a mapping policy configured to map between an EXP field and a unique PHB; defining a customer policy that is configured to govern the treatment of individual customer traffic; defining a network policy that is configured to define the Diffserv treatment of aggregated traffic; translating the mapping policy, the network policy and the customer policy into device-specific commands; and deploying the device-specific commands to policy targets, wherein each policy target comprises a network device that includes an interface assigned a role name associated with the customer policy.

Independent claim 21, upon which claims 22-27 are dependent, is directed to a method for configuring Diffserv over MPLS in a network. The method includes defining a mapping policy configured to map between an EXP field and a unique PHB; defining a customer policy that is configured to govern the treatment of individual customer traffic; defining a network policy that is configured to define the Diffserv treatment of aggregated traffic; translating the mapping policy, the network policy and the customer policy into device-specific commands; and deploying the device-specific commands to policy targets, wherein each policy target comprise a network device that includes an interface assigned a role name associated with the customer policy.

A problem addressed in Basso is, in a Diffserv over MPLS network, an edge router may be coupled to another router using a connection that supports MPLS or Diffserv. Different networks may use different definitions for the same Quality of Service. Accordingly, several memory accesses may need to be performed to translate types of Quality of Service for a received packet. In addressing the problem, Basso proposes providing a single memory table to reduce the number of memory accesses necessary in order for the IP packet to proceed. A per hop behavior (PHB) value is generated from a quality of service type identified in the received IP packet. The quality of Service type may be identified as a differentiated service code point (DSCP) value, if the IP packet is received from a Diffserv network, or an EXP value, if the IP packet is received from a MPLS network. The single memory table is then used to translate the

PHB value to a quality of service value such as an EXP value or a DCSP value, as appropriate.

However, even with the above-discussed solution provided in Basso, one the problems with Basso that still exist is that the customer cannot in MPLS over Diffserv define treatment of individual customer traffic. Another problem of Basso is the burden in MPLS over Diffserv of issuing device-specific commands to each ingress router and egress router.

Applicants respectfully submit that the presently claimed invention addresses the above-mentioned problems that Basso has not provided a solution for and, therefore, distinguish over Basso. For example, the present invention as recited in claim 21 distinguishes over Basso, by further including "defining a customer policy that is configured to govern the treatment of individual customer traffic" and "deploying the device-specific commands to policy targets, wherein each policy target comprises a network device that includes an interface assigned a role name associated with the customer policy". Applicants respectfully assert that Basso does not teach, disclose, or suggest at least these features of the presently claimed invention.

Edmondson, on the other hand, relates to partitioning responsibility for configuring routers to prioritize traffic between the users and service providers. Applicants respectfully assert that there is, however, no mention of MPLS or MPLS over Diffserv. Further, there is no suggestion or motivation in Edmondson to address the problems that are recognized by Basso. Still further, Edmondson does not teach

"deploying the device-specific commands to policy targets, wherein each policy target comprises a network device that includes an interface assigned a role name associated with the customer policy", as recited in claim 21, for example.

Moreover, according to the presently claimed invention, the role names are such that interfaces with the same role names will get the same set of rules and policies. In contrast, Edmondson does not mention assigning such role names. Edmondson merely discloses generating a vendor's specific access list "for the specific router(s) that will be marking the traffic for quality of service treatment using, for example Diffserv" (page 2 paragraph [0020] of Edmondson). The configuration of the router(s) is then updated with the access list.

The arguments set forth above in relation to independent claim 21 are also applicable to the rejection of independent claims 1, 5, 11, and 14 and their respective dependent claims 3-4, 6-10, 13, 15-19, and 22-26.

Claims 2, 12, 20, and 27 stand rejected under 35 U.S.C. §103(a) as being unpatentable over Basso and Edmondson, and further in view of Chase et al. (U.S. Patent No. 7,120,150 – hereinafter Chase). The Office Action contended that Edmondson fails to explicitly teach a tunnel group identifier and tunneling mode. The Office Action then cited Chen as curing this deficiency and contended that Chase teaches mapping frames into different MPLS tunnel according to customer descriptor of teach frame in order to route frame onto separate tunnels to the intended customer. In response, Chase appears to be directed to a method for routing data in an Ethernet protocol network having a

plurality of platforms, each serving one or more customers, wherein a first platform receives at least one frame from a sending site that is destined for a receiving site. After receiving the frame, the first platform overwrites a portion of the frame with a customer descriptor that specifically identifies the sending customer. Fig. 6 cited by the Office Action merely illustrates a portion of a Metropolitan Area Network showing a method in which frames are mapped into different MPLS tunnels. However, Chase does not teach, disclose, or suggest at least defining a customer policy that is configured to govern the treatment of individual customer traffic and deploying the device-specific commands to policy targets, wherein each policy target comprises a network device that includes an interface assigned a role name associated with the customer policy, as recited in Applicants' pending claims. Hence, for the reason set forth above with respect to the obviousness rejection of claims 1, 3-11, 13-19, and 21-26 over Basso and Edmondson, the combination of Chase and Basso and Edmondson still does not teach, disclose, or suggest all of Applicants' claimed features. That is, as Basso and Edmondson are deficient in teaching, disclosing, or suggesting all of the features of independent claims 1, 5, 11, 14, and 21, the combination of Chase and Basso and Edmondson in the rejection of dependent claims 2, 12, 20, and 27 still does not cure the deficiencies of Basso and Edmondson.

As discussed above, Basso, Edmondson, and Chase, in combination or separately, fail to teach, disclose, or suggest all of Applicants' claimed features, as recited in the

pending claims. Accordingly, Applicants respectfully request reconsideration and withdrawal of the pending obviousness rejection over Basso, Edmondson, and Chase.

In view of the above, Applicants respectfully submit that each of the claims 1-27 recites subject matter which neither disclosed nor suggested in the cited reference to Basso, Edmondson, and Chase. It is therefore respectfully requested that these pending rejections be withdrawn, and this application pass to issue with the allowance of pending claims 1-27.

If for any reason the Examiner determines that the application is not now in condition for allowance, it is respectfully requested that the Examiner contact, by telephone, the applicants' undersigned attorney at the indicated telephone number to arrange for an interview to expedite the disposition of this application.

In the event this paper is not being timely filed, the applicants respectfully petition for an appropriate extension of time. Any fees for such an extension together with any additional fees may be charged to Counsel's Deposit Account 50-2222.

Respectfully submitted,

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Enclosures: Petition for Extension of Time